FAI Rules and Regulations - PRECISION FLYING

Proposal to change, in red color (Czech) and blue color (France)

A.2.2
The max. total number of targets and photographs is ~~25~~ 20, the min. number ~~16~~ 12.
- The max. number of photographs is 10, the min. number 8.
- The max. number of ground targets is ~~15~~ 10, the min. number ~~8~~ 4.

~~Canvas Targets~~ Correct photographs at TPs, SP and FP are mandatory : ~~,~~ ~~and they must be letters of the alphabet~~ one for each point, taken correctly on arrival track, with the point of timing clearly circled. These photographs are marked with the name of the point (SP, TP1, TP2… FP). They should help to confirm to the pilots that they are on the correct turning point. ~~Canvas targets at start, finish and turning points shall be as close as practical to the point, but within a radius of 30 meters.~~
The exact position of the photos and canvas targets will be marked by the competitor on the map (see Appendix A1).

A.2.10
Procedure for scoring the observation test:
1. Photo targets:
- They will be scored as "correct/incorrect position" or as "not observed".
~~2. Canvas targets at start, finish and turning points:~~
~~- They will be scored as "correct/incorrect target" or as "not observed"~~
3. Canvas targets en route:
- a. compare number of marked targets en route with actual number used by the organizer.
- b. number of missing targets en route will be scored as "not observed".
- c. marked en route targets will then be scored as "correct" or "incorrect target or position".

A.9.1.3
Passing each timed point

- Limit + or - 2 seconds	0	
- Additional error per full second	3	max ~~100~~ 150
- “not observed“ (outside gate), each time	~~100~~ 150	

A.9.2.1
Photo and en route canvas targets:

- Correct photo or target within 5 mm of correct position	0
- Not observed	20 20
- Incorrect photo, target or position	30 30

~~Canvas targets at start, turning and finish points:~~

~~- Not observed 50 50~~
~~- Incorrect 100 100~~

Appendix A3 - Procedure turn
There should be no penalty applied to a pilot for circling, if he flew a required procedure turn without being timed (not observed).

B.7.8
All the above stated briefings, except the meteo briefing (B.7.5), must be performed by the International Chief Judge or the Competition Director, depending on contents of briefing.

B.9.3
The route planner must consider the following points:
- Positions of SP, TPs, FP and SCs must be determined on the ground, using two independent GPS, working on WGS 84.

- Each SC must be an exactly defined feature, clearly visible from not less than 600 meters before passing them.
~~(except lines which form an angle of 90 degrees to the track) and~~
Its position is clearly identifiable on the competition map as well as on the terrain, without using any additional measurements or features ~~(intc. The planned route)~~ marked to the map by the route planner after its original printout.
If SC is a line (road, river, railway…), that line should be as perpendicular as possible with the track to be flown : not less than 70° angle with the track.

A time t used for flight planning for such a secret point is calculated from a distance d, measured on the Competition Map in the following way:
first, measure on the competition map the total ~~length~~ distance D of the leg ;
second, for an SC on this leg, measure on the competition map the distance d from the TP origin of the relevant leg ;
third, compute the time t required to go there proportionately with the distance measured on the competition map : $t = T * d / D$
with T being the time computed for the complete leg, based on GPS position of turning points, on the computerized flight plan.

- SP and FP should be at least 2 miles apart from each other and in positions, that Departure and Arrival Routes to the relevant airfield can be fixed in a way, that the aircraft don't have to cross the Start line or Finish line on their way from and to the airfield.
- All Checkpoints have to be finally established before competition starts.
-The Organizer must provide the number of Computers and Printers deemed necessary by the International Chief Judge.

B.9.4

The start and finish points must be clearly marked or defined.
Departure and arrival charts shall be given to competitors where the start and finish points are defined.
~~Turning points and secret checkpoints shall not be located in open fields, widely visible.~~
~~Positions in bushes, forests or among buildings are preferable.~~
~~Vehicles should be hidden or parked in normal parking places and the general public should be kept away from checkpoints.~~

B.9.6

Photo targets will be made from air photographs, in color, taken on track but not more than 100 meters left of the centerline in the direction of the line of flight. Photos must be taken in direction of flight and slightly to the left, but not more than 45° to the left. They will be neither too old nor taken in different climatic conditions than those prevailing at the season of the competition.
They shall be taken in such a way, that their bottom border will show 150 meters of the real terrain at minimum.
~~They shall be taken with a 50 to 75 mm lens at an altitude between 800-1000 feet AGL.~~
Canvas targets will be located on the centerline of the track or within 100 meters to the left of the track centerline. In the case of canvas targets these are not to be placed in the center of wide-open spaces, but close to woods, hedges and other obstacles. The object to be observed will be circled on each photograph.
However, both photo targets and canvas targets shall be clearly visible to a competitor from not less than 600 meters before passing them at an altitude of 1000 feet AGL.
To enable observation of photo and canvas targets, there must be an obstacle free area of at least 45° on either side o f the track measured in the vertical plane. Canvas targets both along the track and at turning points may be changed at intervals to reduce the effectiveness of any attempt to cheat between competitors of the same nationality.

B.13.1

A Master map showing the route with coordinates of turning points, targets and originals of photographs has to be published a short time after debriefing of the last competitor.
An envelope containing all the materials given to the pilots for a navigation practice, with the coordinates of all points (SP, TPs, FP), should be given to each team manager as soon as the last competitor is in the debriefing room.
All the photographs of the related competition route must be available for all team managers to obtain them in unchanged form (not physically nor digitally processed) together with the preliminary results of every single

pilot of his/her own team, latest at a daily team manager´s briefing, prior the time for passing complaints and protests has come up.
This information may ~~be~~ also be published by electronic device.

Submitted by :

Bertrand DE GREEF - Precision Flying – Team manager France

Paris, 28/09/2009